## SEABIRD ISLANDS

No. 196

# Erskine Island, Great Barrier Reef, Queensland

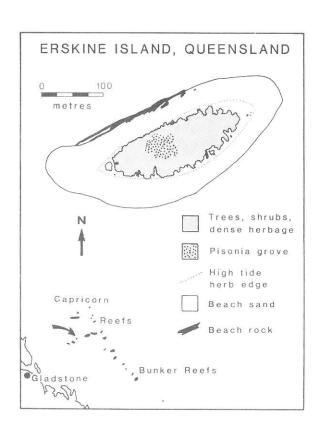
Location: 23°30′S., 151°46′E.; in the Capricorn Group at the southern end of the Great Barrier Reef, 65 kilometres north-east of Gladstone, Oueensland.

Status: Queensland National Park.

Description: 1.5 ha; 280 m by 100 m (measurements at high tide). The cay is primarily sand with intermixed shingle situated near the north-western side of a 130 ha reef (1.5 km  $\times$  1 km). Changes in shape of the cay over many years are described by Flood<sup>6</sup>. The western half of the cay is 1-2 m higher than the eastern half. A total of 23 species of plants have been recorded<sup>2,7,9</sup>. Low Argusia argentea and Scaevola sericea trees and shrubs fringe the cay. Behind this fringe the vegetation consists mainly of grasses and herbs, notably Melanthera biflora, Abutilon indicum and Achryanthes aspera. Mats of dodder laurel Cassytha filiformis are conspicuous at the western end. A stunted grove of Pisonia grandis (<2 m high) is present on the central raised area and isolated low Pisonia and Ficus opposita trees are present elsewhere. It is the only island in the Capricorn Group that does not have Casuarina or Pandanus trees.

Landing: Across the reef usually at the northwestern or western side of the cay. The anchorage is poor in rough seas.

Ornithological History: A few early observations were made by an R.A.O.U. expedition<sup>1</sup> in October 1910, by Edgell<sup>5</sup> in 1926 and by Cooper<sup>3</sup> in December 1946. No seabird breeding was recorded. Storr<sup>10</sup> reported Silver Gull nesting. During the early 1980s M. Vanek studied the



nesting distribution of shearwaters. K. Hulsman surveyed seabirds on 23 December 1983<sup>8</sup> and S. G. Lane censused birds on 8 January 1984<sup>8</sup>. S. Domm visited in the late 1960s<sup>4</sup> and recorded birds on 10 occasions from February 1983 to February 1985. T. Walker surveyed birds on 19 occasions from March 1983 to May 1987. Some observations were made in recent years by C. Limpus, F. Savage, D. Lee and other park staff.

## Breeding Seabirds and Status

Puffinus pacificus Wedge-tailed Shearwater — Nesting commences in October over the entire vegetated part of the cay. The highest densities of burrows occur in areas dominated by low shrubs mostly *Melanthera* and *Scaevola*. Numbers were estimated at fewer then 500 pairs during 1982-83 and 1983-848.

Egretta sacra Eastern Reef Egret — Recorded in 1926<sup>5</sup> ("a few") and in 1946<sup>3</sup>. In recent years from two to 30 have been present. Most are white. An old nest was located on the ground in the *Pisonia* grove in December 1986.

Larus novaehollandiae Silver Gull — Present in 1946<sup>3</sup>. Nesting was reported prior to 1973 but no details were given<sup>10</sup>. Breeding can occur at any time of the year but is rare during winter months. Nests are dispersed and camouflaged. The maximum number of nests found at any time was three but gull behaviour suggested that other hidden nests were present. From 10 to 120 gulls have been recorded. Numbers vary daily as gulls move to Heron Island and other islands to feed.

Sterna dougallii Roscate Tern — Five birds laid single eggs between 16 and 19 February 1982 on the north-eastern beach. Two nesting colonies (north-west beach rock and centre of cay) commenced in late February 1983 and continued into late April. There were about 200 adult birds present but only a small number of nests visible from a distance. About 200 nested in the centre of the cay in early March 1984. Two colonies totalling 50 adult birds were nesting at the eastern and western sides of the cay in December 1984. Nesting was not observed in 1985 or 1986. About 30 nested at the eastern end in January 1988.

Sterna sumatrana Black-naped Tern — Fledglings were present in February 1982. A colony of 50 nested on the northern side of the cay in December 1984. A colony was present on the north-western side on 25 February 1987 (74 adults present with 11 nests with eggs visible) but had disappeared by 19 March. A small colony nested

at the eastern beach with Roseate Terns in January 1988. Small numbers of non-breeding birds rest occasionally on the cay during the year.

Sterna anaethetus Bridled Tern — Breeding commences regularly each year in October and is usually completed by March. From 25 to 35 pairs have been estimated nesting since 1983. Birds depart the island shortly after breeding and are absent between May and September. In mid-April only a few remain. The colony was not present in December 1946<sup>3</sup>.

Sterna bergii Crested Tern — In December 1984 a colony of 30 were nesting at the eastern side of the cay. A colony with 80 nests containing single eggs was present in early December 1985 in the centre of the cay<sup>11</sup>. Two colonies with 188 nests (one third hatchlings, the rest eggs) and 11 nests (eggs) were present on 13 December 1986. The small colony was in the centre of the cay. The large colony was at the south-western side of the cay at the same site where a Lesser Crested Tern colony had been the previous month. Two unfledged juveniles were also present on the beach. In January 1988 there were 89 chicks reported.

Sterna bengalensis Lesser Crested Tern — Occasionally present at the island in spring and summer. On 27 October 1986 there were 90 birds with 14 nests containing single eggs. The colony was at the edge of a grassy bank on the southwestern side of the cay. A small colony also nested the following year in September.

Anous minutus Black Noddy — Domm<sup>4</sup> noted that "few White-capped Noddies or Mutton Birds use this island for nesting"; however, the reference to noddy nesting is an error. J. Burger found four nests in Argusia trees on 8 January 19848. The contents of the nests were not reported and they may have been empty "practice nests". There has been no nesting activity observed in subsequent years although sometimes up to 80 birds roost in Argusia trees at the western end of the cay.

#### Factors Affecting Status

Owing to the small size of the cay the terns are readily disturbed from their nests when people go ashore. Shearwater burrows are collapsed by careless visitors or occasionally by nesting turtles. Fortunately, human visitation is infrequent because there is little shade compared with forested cays in the area. Nesting disturbance to terns may result from nesting turtles coming ashore and there is probably predation of tern eggs by gulls. High-tide flooding of tern nests on the eastern beach was suspected in February 1982. Remains of shearwaters, Crested Terns and Bridled Terns are found at feeding roosts of the White-bellied Sea-Eagle *Haliaeetus leucogaster*.

The nocturnal activities of shearwaters and turtles may interfere with nesting of Bridled Terns. The habitat covered by *Melanthera* is similar to that at nearby One Tree Island where Bridled Terns have a much higher nesting density. At One Tree Island there is minimal turtle nesting and shearwaters do not nest because they cannot burrow into the shingle substrate.

#### OTHER VERTEBRATES

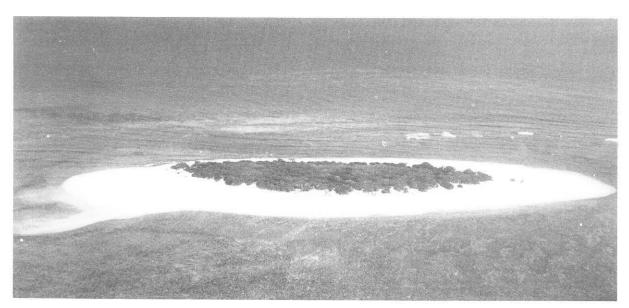
Green Turtle *Chelonia mydas* and Loggerhead Turtle *Caretta caretta*.

#### Other Seabirds Recorded

Sula dactylatra Phalacrocorax melanoleucos Haematopus longirostris Haematopus fuliginosus Sterna albifrons Masked Booby (1 immature) Little Pied Cormorant (rare) Pied Oystercatcher (rare) Sooty Oystercatcher Little Tern

## Banding

Puffinus pacificus — 2 adults. Larus novaehollandiae — 6 adults; 2 chicks.



• Erskine Island from the air (looking northward).

Photo: T. A. Walker.

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## Acknowledgements

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#### Erratum

Please note the following corrections to Corella Vol. 12, No. 3, October 1988.

Page 89: Include at top of page:
"SEABIRD ISLANDS No. 189"

Back Cover: Under "Contents" alter No. 187 (Ben Island) to read No. 189.

Alter Forrest and Penguin Islands to read No. 187 and No. 188 respectively.